

SEARCH REQUEST FORM
(STIC)

Access DB# 142837

Requestor's Name: David Lukton

Examiner number: 71263

Date: 3/15/05

Art Unit: 1653

Phone number: 571-272-0952

Serial Number:

10-825 038

Mail Box: 3-C-70

Examiner Rm: 3-B-75

Results format: paper

Title of Invention: Intermediate for Preparing Glycopeptide Derivatives

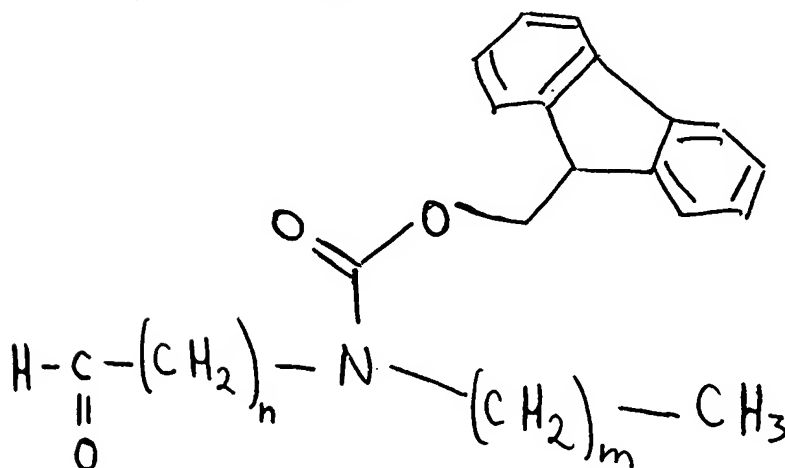
Applicant: LINSELL, MARTIN S.

Earliest Priority Date: 12/23/98

Applicants are claiming the compounds below.

"n" is an integer of 1 or 2

"m" is an integer of 6-10



STAFF USE ONLY

Type of Search

Vendors and cost where applicable

Searcher: _____

NA Sequence (#) _____

STN _____

=> d his ful

FILE 'REGISTRY' ENTERED AT 15:42:37 ON 15 MAR 2005

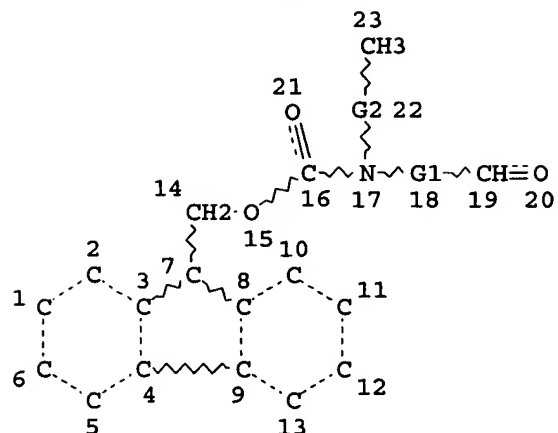
L1 STR
L2 0 SEA SSS SAM L1
L3 1 SEA SSS FUL L1 *1 compd from Reg.*

FILE 'HCAPLUS' ENTERED AT 15:48:00 ON 15 MAR 2005

L4 11 SEA ABB=ON L3
D AU 1-11
L5 2 SEA ABB=ON L4 AND (PRD<19981223 OR PD<19981223) *2 cit's from CAPlus*
E LINSELL MARTIN S/AU
L6 20 SEA ABB=ON ("LINSELL MARTIN"/AU OR "LINSELL MARTIN S"/AU OR
"LINSELL MARTIN SHERINGHAM"/AU)
L7 13 SEA ABB=ON L6 AND ?GLYCOPEPTID?
L8 7 SEA ABB=ON L7 AND ?INTERMED?
SELECT RN L8 1-7

inventor search

=> d que stat 15
L1 STR



REP G1=(1-2) CH2
REP G2=(6-10) CH2
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L3 1 SEA FILE=REGISTRY SSS FUL L1
L4 11 SEA FILE=HCAPLUS ABB=ON L3
L5 2 SEA FILE=HCAPLUS ABB=ON L4 AND (PRD<19981223 OR PD<19981223)

=> d ibib abs 15 1-2

L5 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1999:755837 HCAPLUS
 DOCUMENT NUMBER: 131:322927
 TITLE: Preparation of vancomycin-related antibacterial agents
 INVENTOR(S): Chen, Qi Qi; Griffin, John H.; Jenkins, Thomas E.;
 Judice, J. Kevin; Linsell, Martin S.; Leadbetter,
 Michael R.
 PATENT ASSIGNEE(S): Advanced Medicine Inc., USA
 SOURCE: Fr. Demande, 193 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2778184	A1	19991105	FR 1999-2172	19990222 <--
US 6518242	B1	20030211	US 1999-253670	19990219 <--
ZA 9901412	A	20000822	ZA 1999-1412	19990222 <--
IT 1307018	B1	20011023	IT 1999-TO134	19990222 <--
PRIORITY APPLN. INFO.:			US 1998-75514P	P 19980220 <--
			US 1998-78903P	P 19980320 <--
			US 1998-82209P	P 19980417 <--
			US 1999-119162P	P 19990208

AB Novel antibacterial agents that act as multi-binding agents, LpXq [L is a ligand such as an optionally substituted glycopeptide, e.g., vancomycin; X is a linker, e.g., NHR6NHCOR7CONHR8NH (R6, R7, R8 are optionally substituted alkylene); p = 2-10; q = 1-20], are disclosed. The compds. of the invention are capable of binding to a transglycosylase enzyme substrate, thereby modulating their biol. processes/functions. Thus, [C-C]-[pentane-1,5-dioic acid bis(2-aminoethyl)amide]bis(vancomycin) was prepared by condensation of vancomycin hydrochloride with pentanedioic acid bis(2-aminoethyl)amide and used to prepare pharmaceutical formulations. The compds. of the invention showed a broad spectrum of antibacterial activity.

L5 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1999:549285 HCAPLUS
 DOCUMENT NUMBER: 131:170642
 TITLE: Preparation of vancomycin-related antibacterial agents
 INVENTOR(S): Chon, Qi-Qi; Griffin, John H.; Jenkins, Thomas E.;
 Judice, J. Kevin; Linsell, Martin S.
 PATENT ASSIGNEE(S): Advanced Medicine, Inc., USA
 SOURCE: PCT Int. Appl., 174 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9942476	A1	19990826	WO 1999-US3850	19990222 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,				

MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
 TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6518242	B1	20030211	US 1999-253670	19990219 <--
CA 2318394	AA	19990826	CA 1999-2318394	19990222 <--
AU 9933073	A1	19990906	AU 1999-33073	19990222 <--
ZA 9901412	A	20000822	ZA 1999-1412	19990222 <--
EP 1060189	A1	20001220	EP 1999-934285	19990222 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

IT 1307018	B1	20011023	IT 1999-TO134	19990222 <--
PRIORITY APPLN. INFO.:			US 1998-75514P	P 19980220 <--
			US 1998-78903P	P 19980320 <--
			US 1998-82209P	P 19980417 <--
			US 1999-119162P	P 19990208
			WO 1999-US3850	W 19990222

OTHER SOURCE(S): MARPAT 131:170642

AB Novel antibacterial agents that act as multibinding agents, LpXq [L is a ligand such as an optionally substituted glycopeptide, e.g., vancomycin; X is a linker, e.g., NHR6NHCOR7CONHR8NH (R6, R7, R8 are optionally substituted alkylene); p = 2-10; q = 1-20], are disclosed. The compds. of the invention are capable of binding to a transglycosylase enzyme substrate, thereby modulating their biol. processes/functions. Thus, [C-C]-[pentane-1,5-dioic acid bis(2-aminoethyl)amide]bis(vancomycin) was prepared by condensation of vancomycin hydrochloride with pentanedioic acid bis(2-aminoethyl)amide and used to prepare pharmaceutical formulations. The compds. of the invention showed a broad spectrum of antibacterial activity.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr l10 1-7

L10 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:58212 HCAPLUS
DOCUMENT NUMBER: 142:134930
TITLE: Preparation of cross-linked **glycopeptide**
-cephalosporin antibiotics
INVENTOR(S): Fatheree, Paul R.; Linsell, Martin S.;
Marquess, Daniel; Trapp, Sean G.; Moran, Edmund J.;
Aggen, James B.
PATENT ASSIGNEE(S): Theravance, Inc., USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005005436	A2	20050120	WO 2004-US22319	20040709
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005026818	A1	20050203	US 2004-888849	20040709
PRIORITY APPLN. INFO.: GI			US 2003-486484P	P 20030711

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention provides cross-linked **glycopeptide**-cephalosporin compds. I [R is fragment II; X1, X2 are independently H or Cl; W is N or CCl; R1, R2 are independently H or alkyl; R3 is alkyl, alkoxy, halo, alkylthio, alkylsulfinyl, alkylsulfonyl or alkoxysulfonyl which may be substituted by CO2H or F; one of R4 and R5 is H and the other is OH; R6, R7 are independently H or Me; R8 is H or 4-amino-3-hydroxy-2,4-dimethyltetrahydro-2H-pyran-2-yl; R9 is H or (cyclo)alkyl which may be substituted by CO2H or 1-3 F atoms; n is 0-3; X is -Ra(NRbCO-Rc)0-2(CONRb'CO-Rc')0-2-, where Ra is -Y-R''; R'' contains at most 20 non-hydrogen atoms and is defined as (un)substituted alkylene, alkenylene, alkynylene, cycloalkylene, arylene, heteroarylene or heterocyclyl; Y links R to the pyridinium ring at a meta or para position and is a direct bond, NR', O, S, CO, NR'CO or CONR' (R' is H or alkyl), precluding direct bonds between heteroatoms in Y and R; Rb, Rb' are independently H, alkyl, alkenyl or alkynyl; Rc is independently -Y'-R'''-Y'-, where each Y' is independently a direct bond, O or NR', precluding direct bonds between heteroatoms in Y' and R; Rc' is a group defined by R'''] and their pharmaceutically-acceptable salts which are useful as antibiotics. The invention also provides pharmaceutical compns., methods for treating

bacterial infections in a mammal, and processes and **intermediates** useful for preparing such compds. Thus, vancomycin hydrochloride was treated with ethylenediamine/formaldehyde and pyridinium lactam II (W is CCl, X is 4-CH₂NH₂, n is 0, R₉ is Me) (prepared from an aminocephalosporonic ester) was amidated with adipic acid bis-HOAT ester. Coupling of the products afforded a **glycopeptide**-cephalosporin conjugate which showed MIC < 0.1 µg/mL for inhibition of methicillin-resistant and methicillin-susceptible *S. aureus* (vancomycin MIC = 2.0 and 1.0 µg/mL, resp.).

IT 827040-07-3P 827040-08-4P 827040-09-5P
827040-10-8P 827040-11-9P 827040-12-0P
827040-13-1P 827040-14-2P 827040-15-3P
827040-16-4P 827040-17-5P 827040-18-6P
827040-19-7P 827040-20-0P 827040-21-1P
827040-22-2P 827040-23-3P 827040-24-4P
827040-25-5P 827040-26-6P 827040-27-7P
827040-28-8P 827040-29-9P 827040-30-2P
827040-31-3P 827040-32-4P 827040-33-5P
827040-34-6P 827040-35-7P 827040-36-8P
827040-37-9P 827040-38-0P 827040-39-1P
827040-40-4P 827040-41-5P 827040-43-7P
827040-44-8P 827040-45-9P 827040-46-0P
827040-47-1P 827040-48-2P 827040-49-3P
827040-50-6P 827040-51-7P 827040-53-9P
827040-54-0P 827040-55-1P 827040-56-2P
827040-57-3P 827040-58-4P 827040-59-5P
827040-60-8P 827040-61-9P 827040-62-0P
827040-63-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of cross-linked **glycopeptide**-cephalosporin antibiotics)

RN 827040-07-3 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

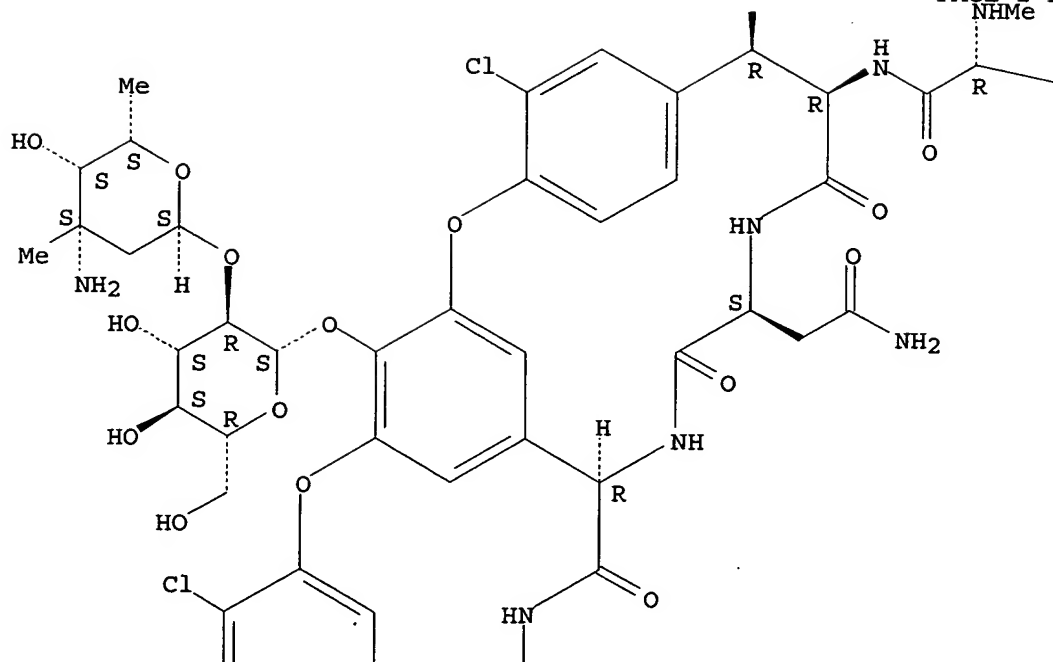
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

OH

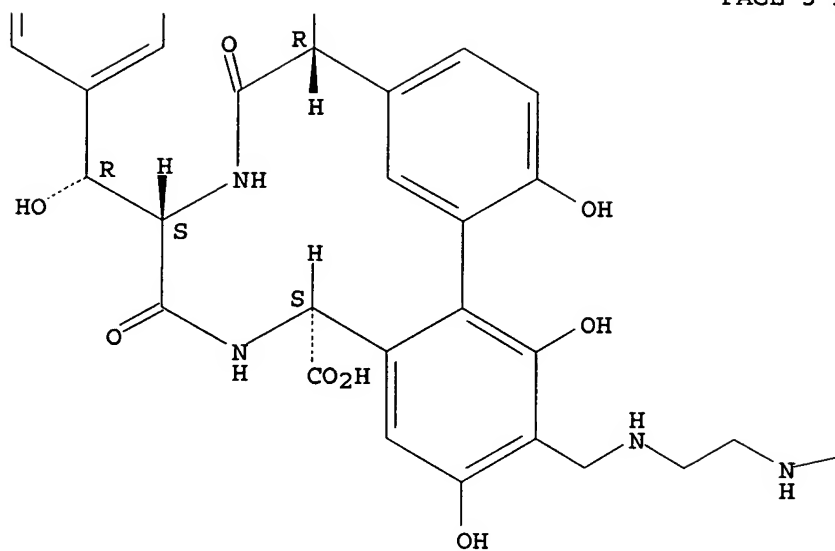
PAGE 2-A
NHMe



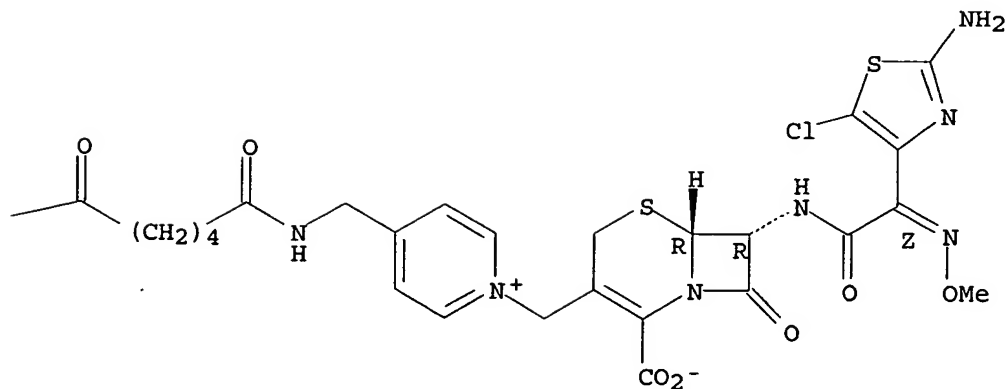
PAGE 2-B

Bu-i

PAGE 3-A



PAGE 3-B



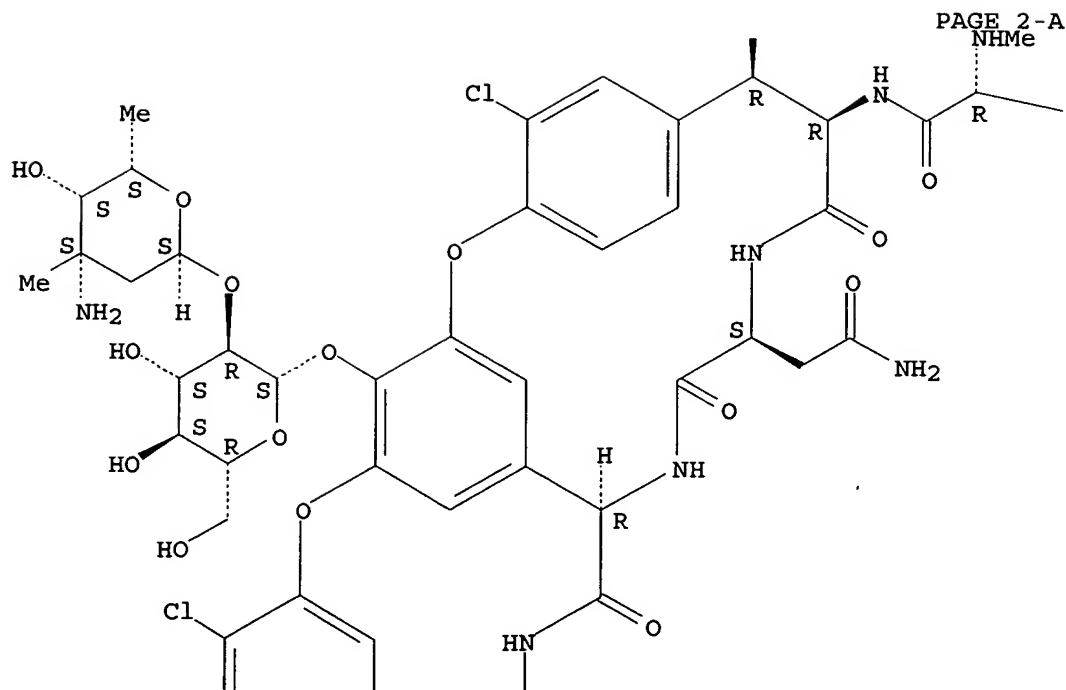
RN 827040-08-4 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

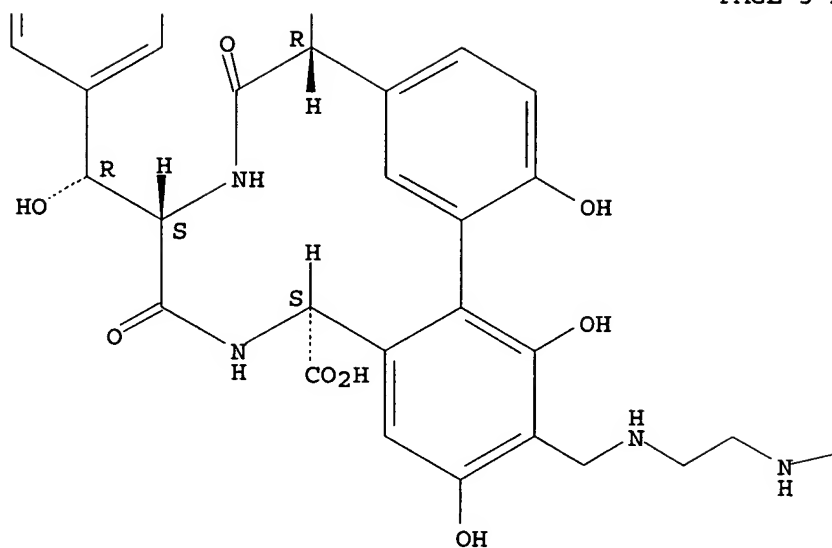
OH



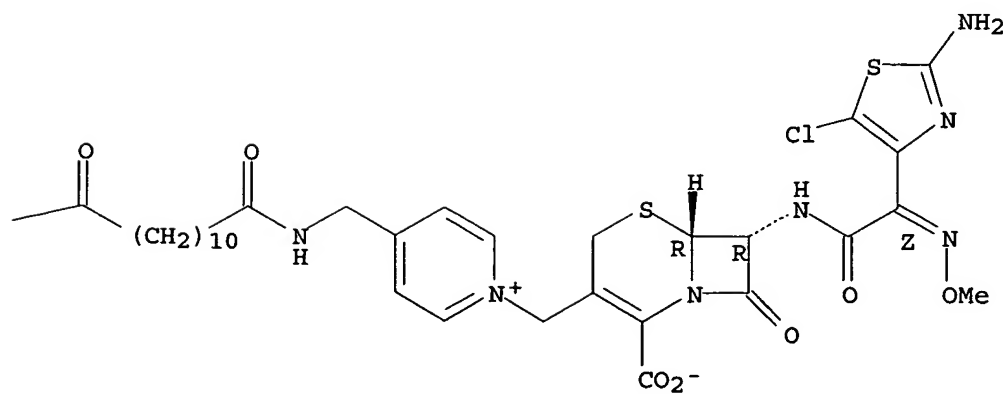
PAGE 2-B

-Bu-i

PAGE 3-A



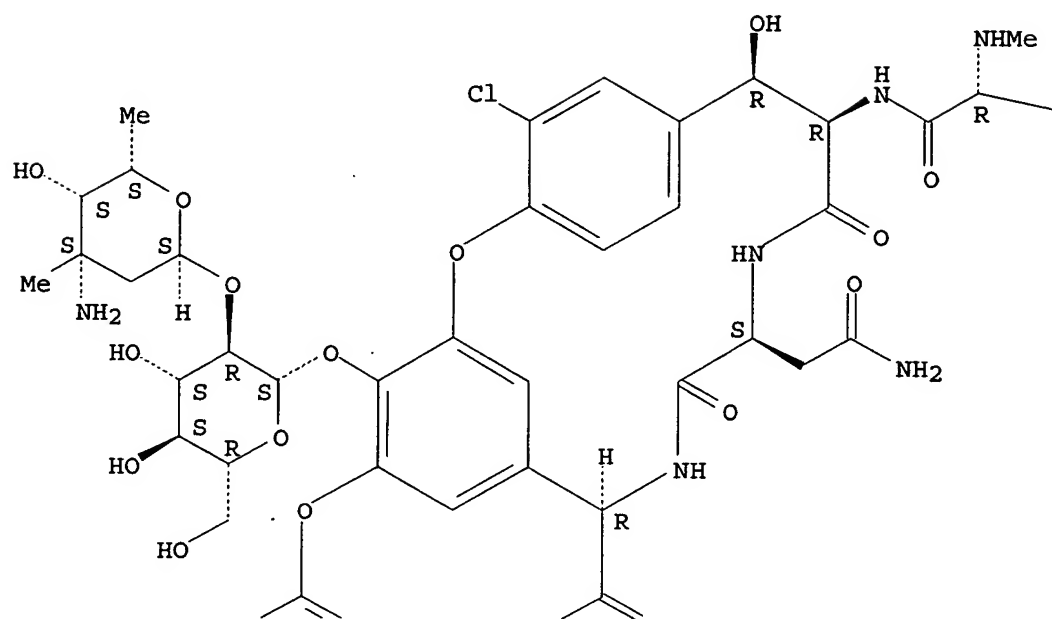
PAGE 3-B



RN 827040-09-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

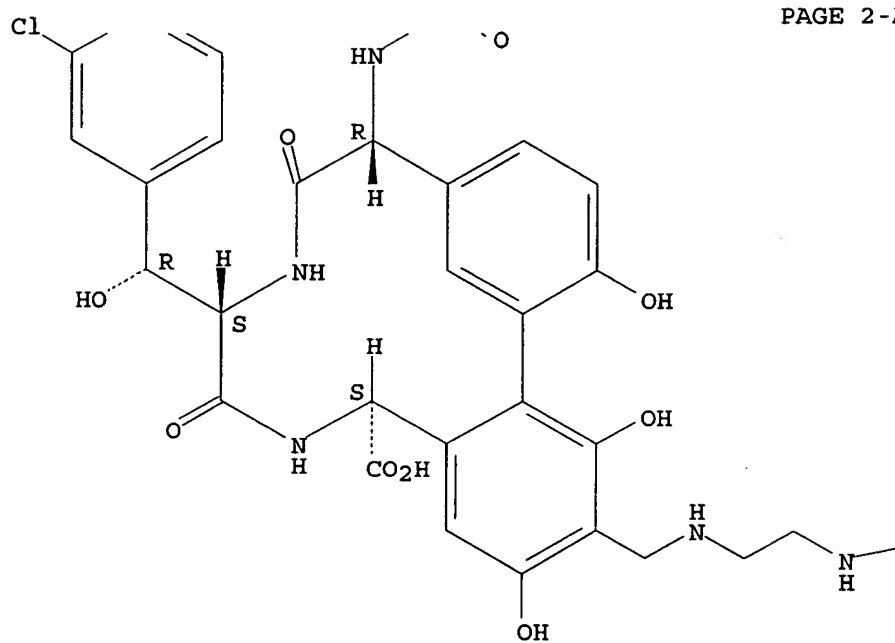
PAGE 1-A



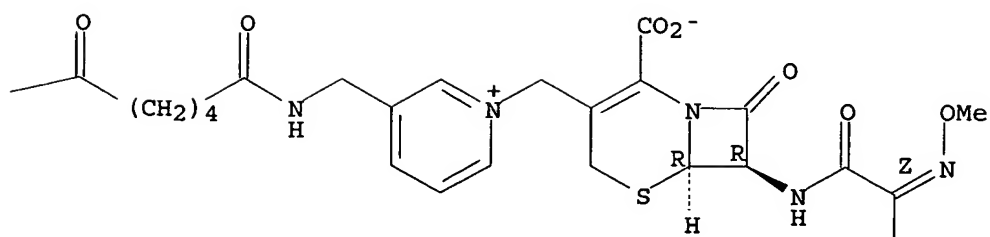
PAGE 1-B

— Bu-i

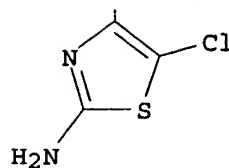
PAGE 2-A



PAGE 2-B



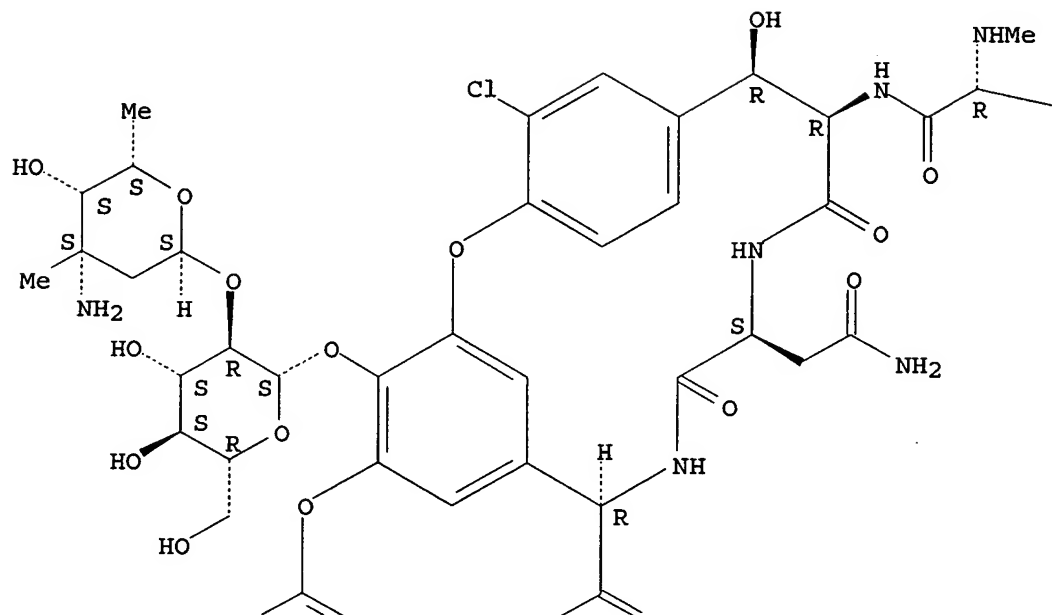
PAGE 3-B



RN 827040-10-8 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

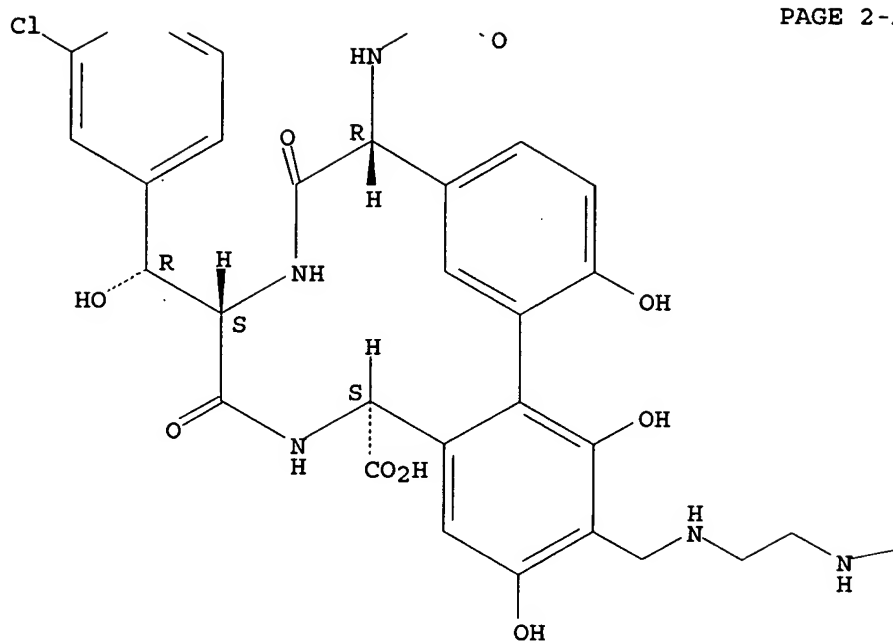
PAGE 1-A



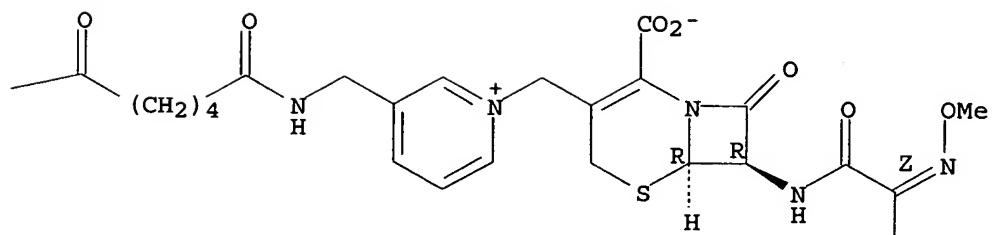
PAGE 1-B

— Bu-i

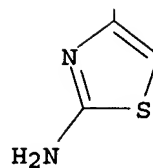
PAGE 2-A



PAGE 2-B



PAGE 3-B

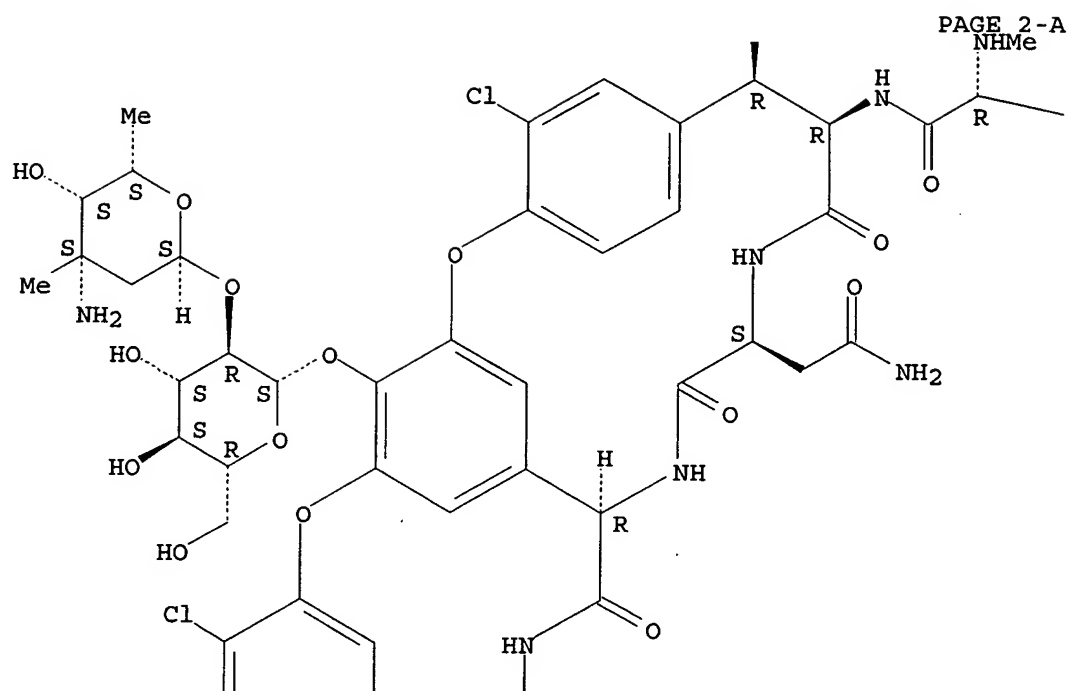


RN 827040-11-9 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

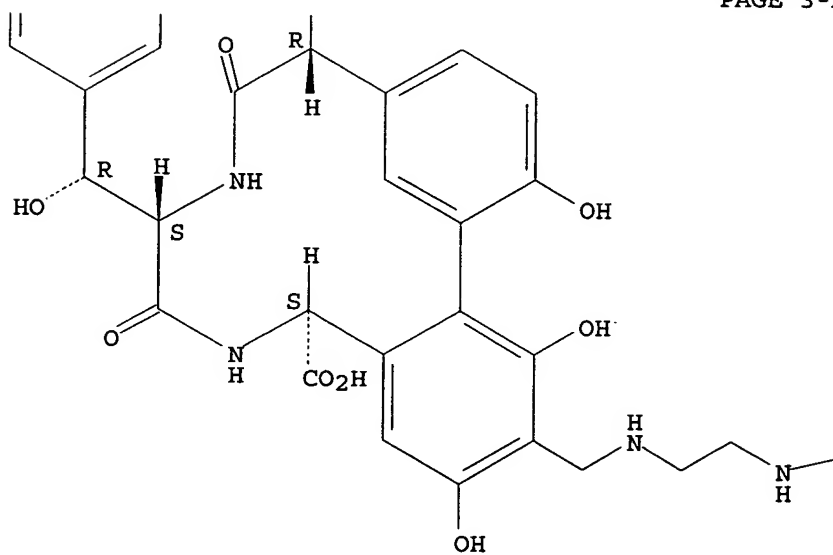
OH



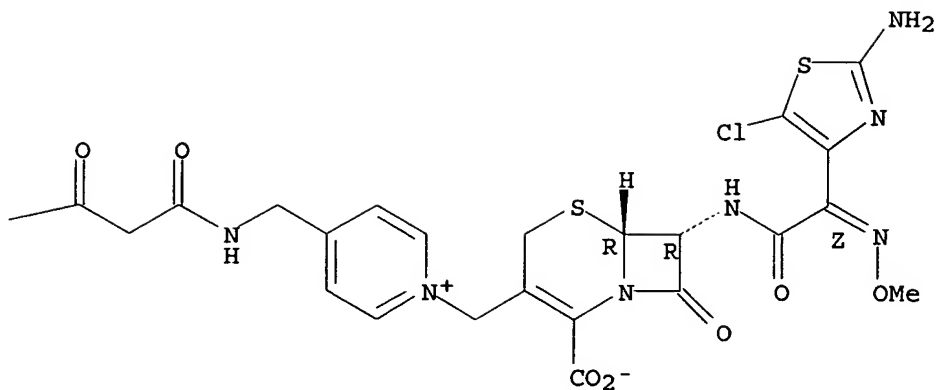
PAGE 2-B

- Bu-i

PAGE 3-A



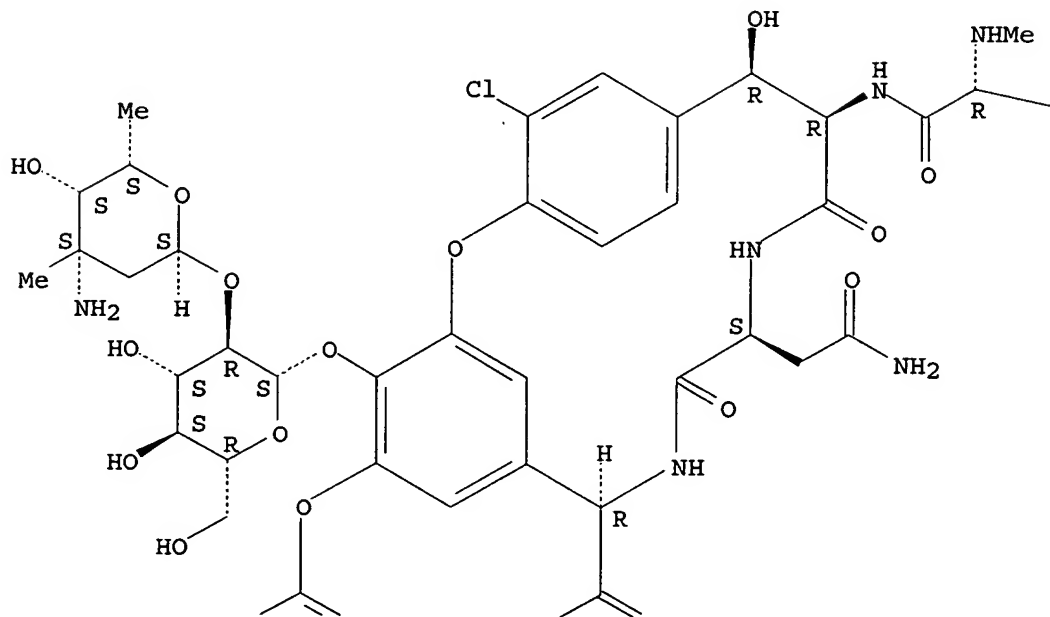
PAGE 3-B



RN 827040-12-0 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

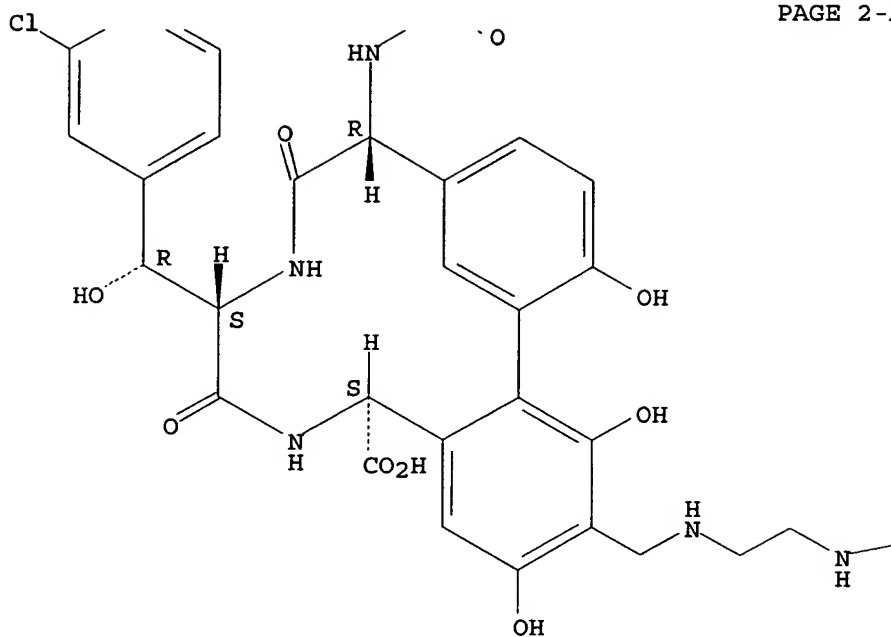
PAGE 1-A



PAGE 1-B

Bu-i

PAGE 2-A



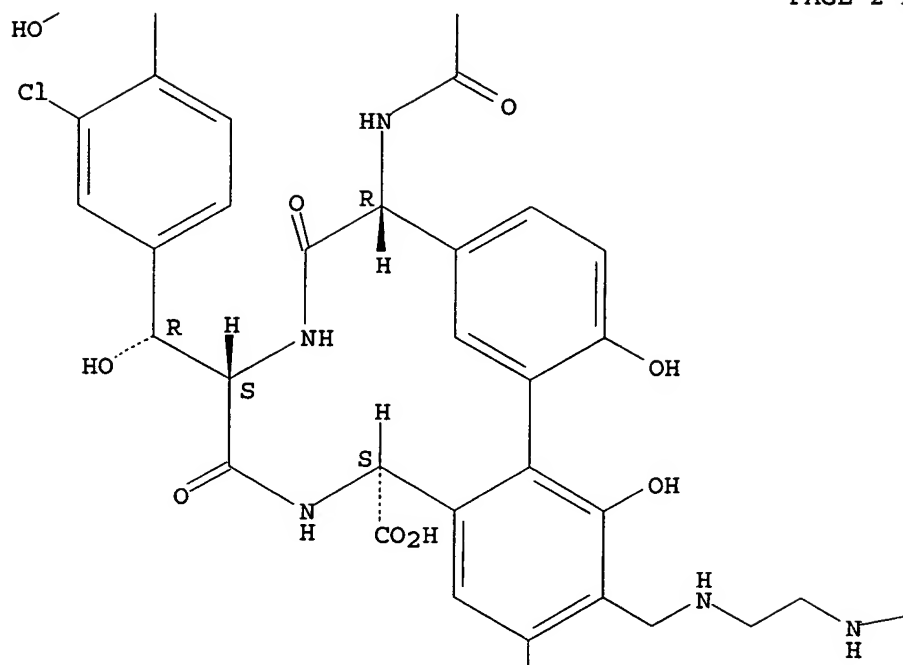
Nc1cc(Cl)sc1

Absolute stereochemistry.
Double bond geometry as shown.

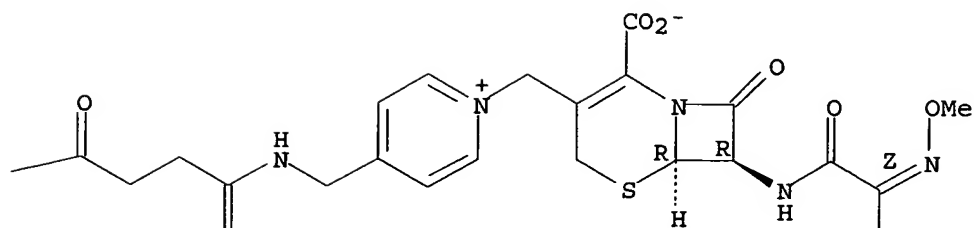
The chemical structure shows a central benzene ring with several substituents. At the top, there is a chlorophenyl group (a benzene ring with a chlorine atom at the para position) connected via an ether linkage (-O-) to the central ring. To the right of the central ring, there is a hydroxyl group (-OH) and an amide group (-NH-) connected to a side chain. This side chain includes a carbonyl group (C=O) and a nitrogen atom bonded to a methyl group (Me) and a hydrogen atom (H). Below the central ring, there is another ether linkage (-O-) connecting to a benzene ring with a chlorine atom at the para position. This benzene ring is further substituted with a hydroxyl group (-OH) and an amide group (-NH-) connected to a side chain. This side chain includes a carbonyl group (C=O) and a nitrogen atom bonded to a methyl group (Me) and a hydrogen atom (H). The structure is highly complex and contains many stereocenters, indicated by wedge and dash bonds.

— Bu-i

PAGE 2-A



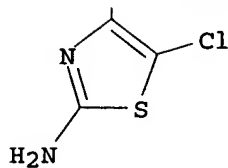
PAGE 2-B



PAGE 3-A



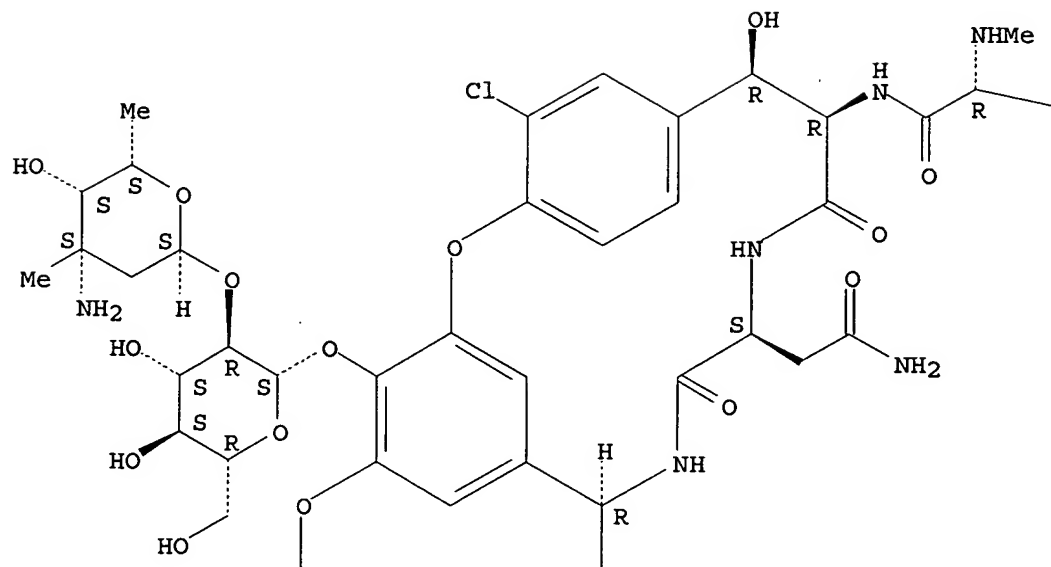
PAGE 3-B



RN 827040-14-2 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

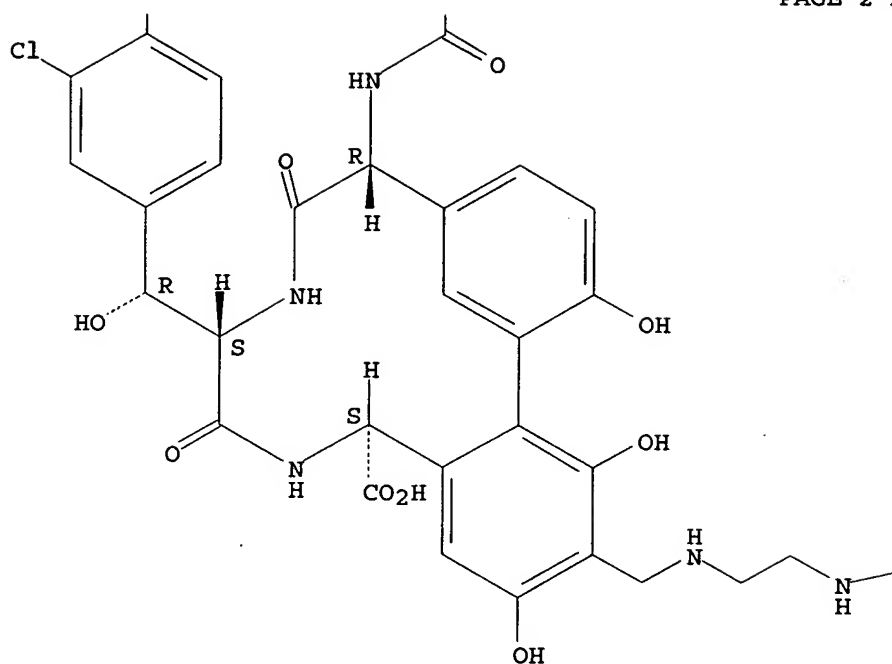
Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

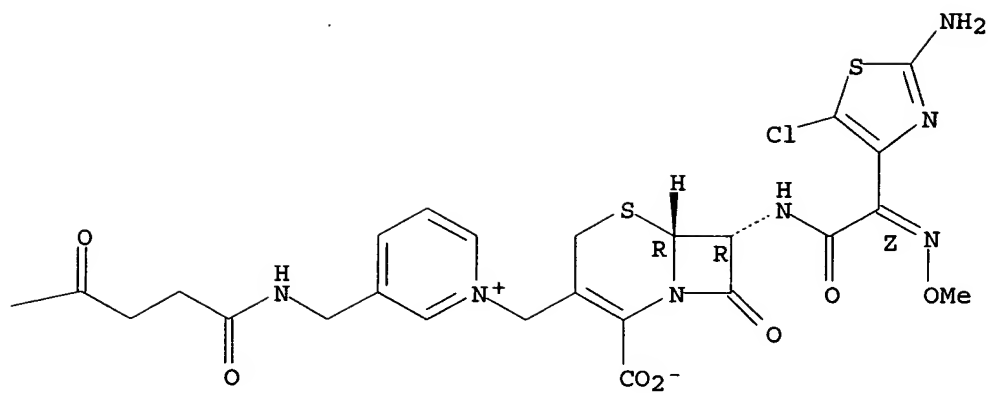


— Bu-i

PAGE 2-A



PAGE 2-B

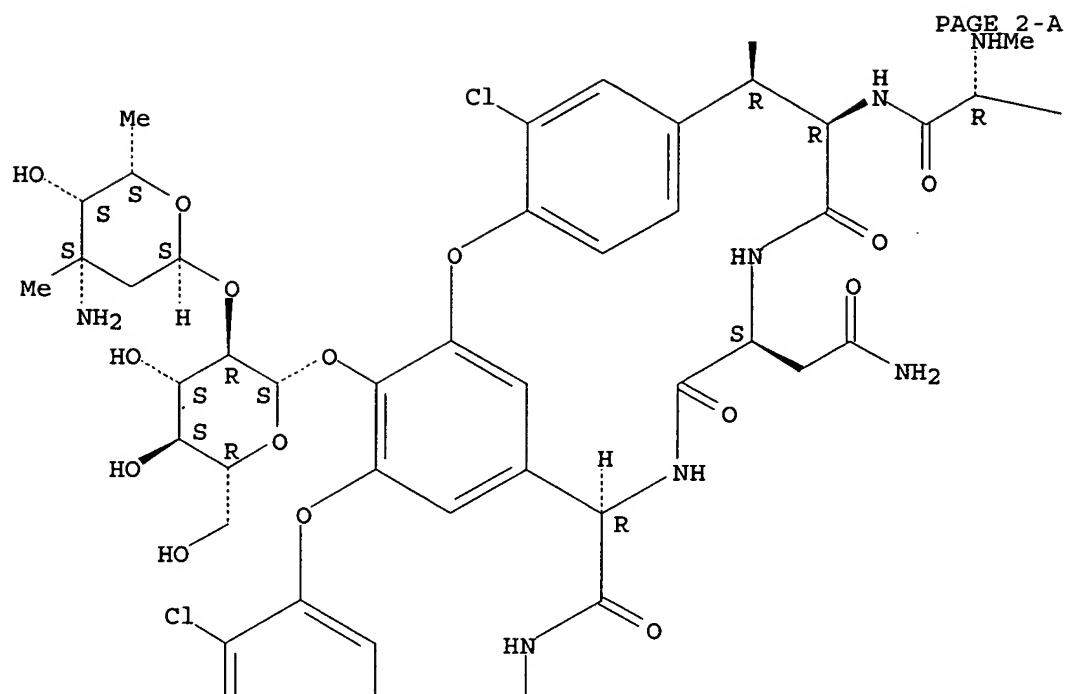


RN 827040-15-3 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

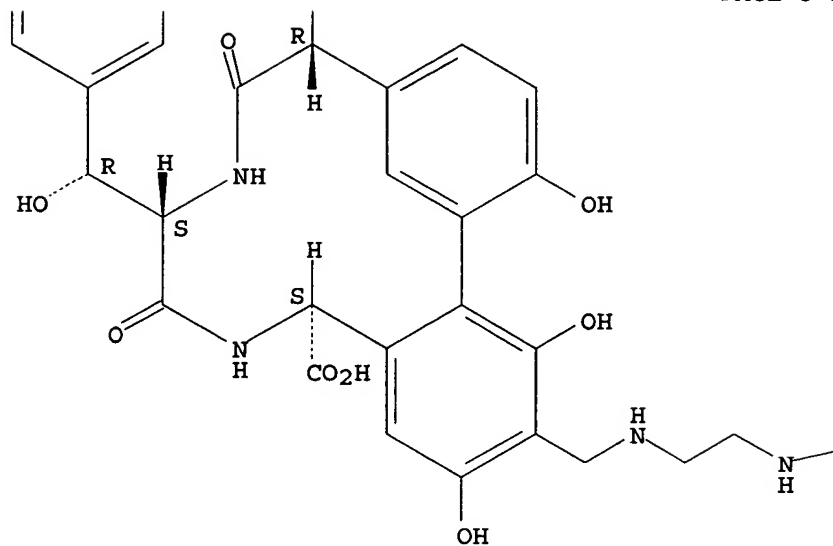
OH
O



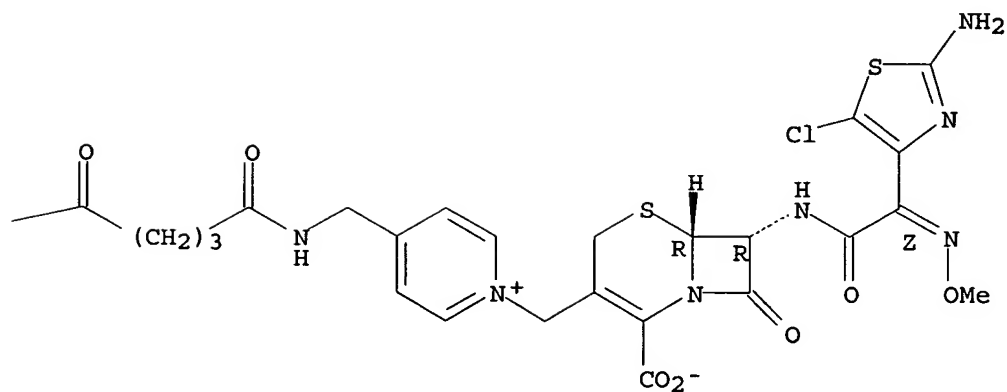
PAGE 2-B

— Bu-i

PAGE 3-A



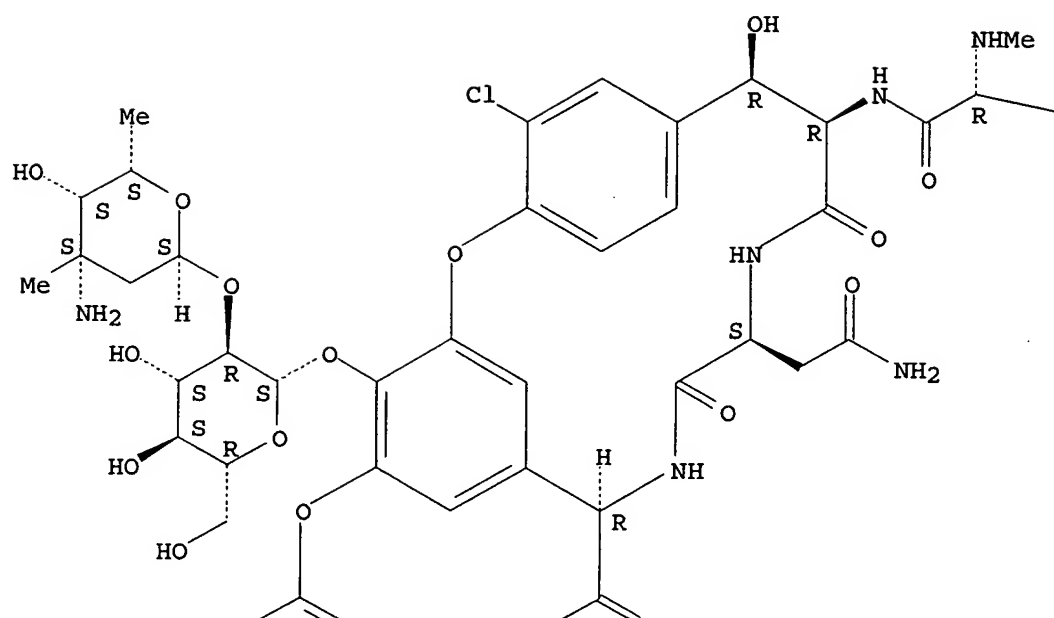
PAGE 3-B



RN 827040-16-4 HCAPLUS
 CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
 Double bond geometry as shown.

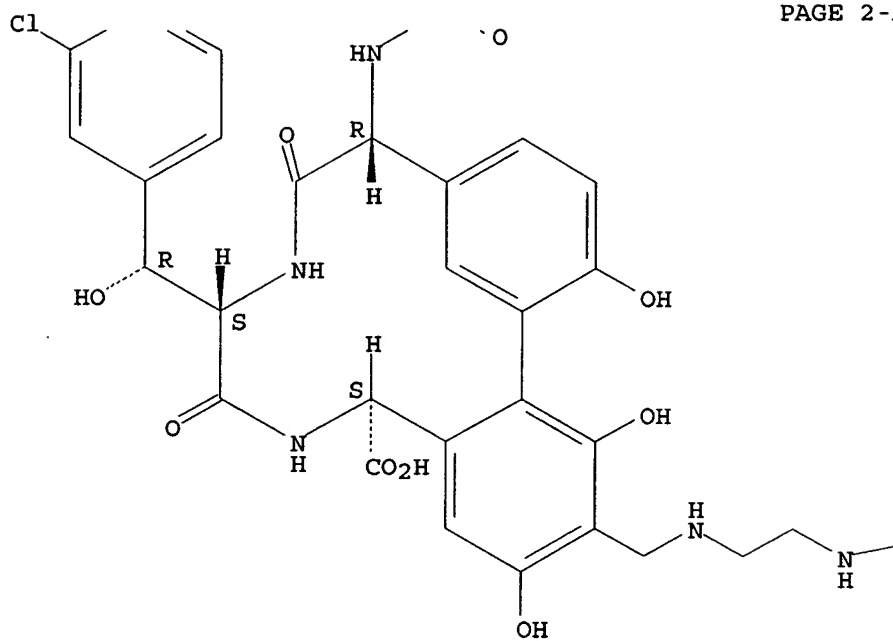
PAGE 1-A



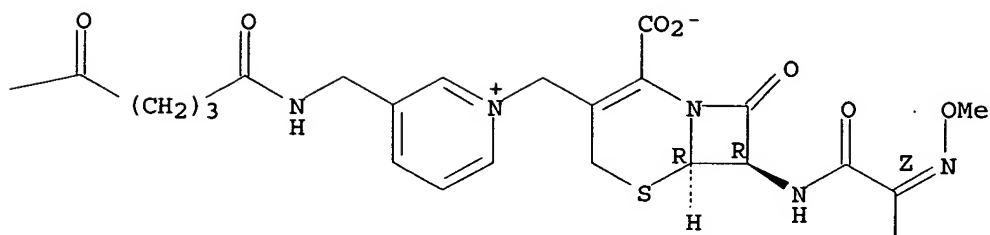
PAGE 1-B

— Bu-i

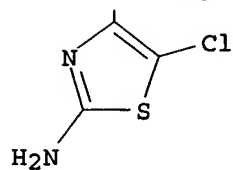
PAGE 2-A



PAGE 2-B



PAGE 3-B

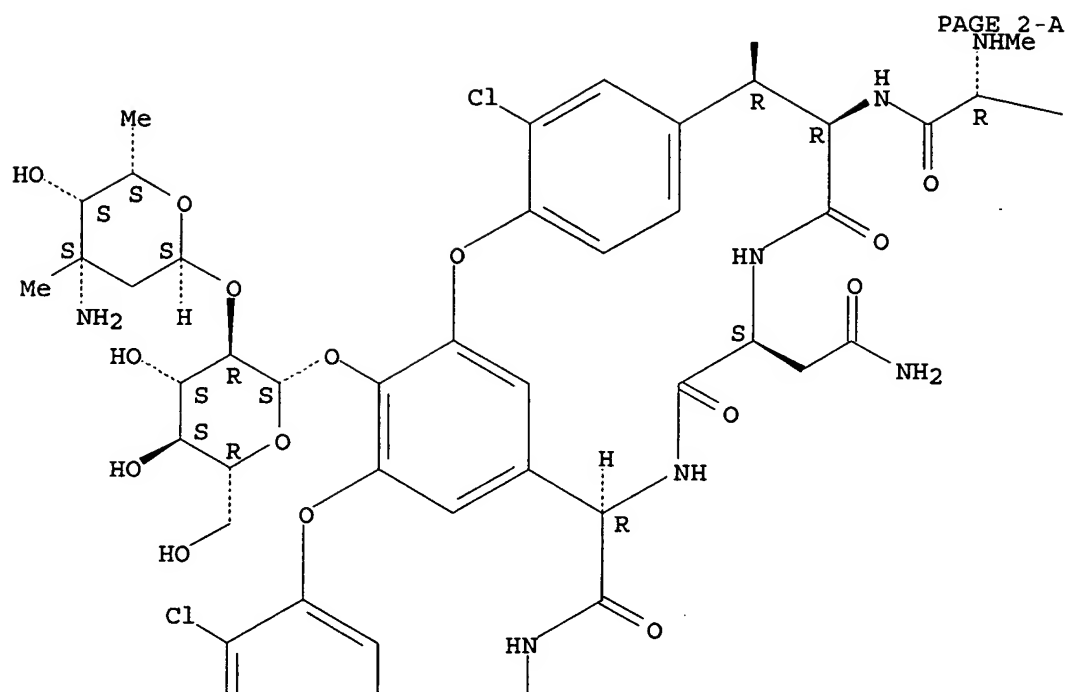


RN 827040-17-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A

OH



PAGE 2-B

— Bu-i

PAGE 3-A

